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"VERONICA" IN NORTH AND SOUTH AMERICA

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(Continued from p. 22.)

II. VERONICA L., Subgenus 2. EUVERONICA Pennell

Veronica L., Sp. Pl. 9. 1753. Type species, *V. officinalis* L.,⁷ of Europe.

A. Capsule pubescent. Stems, pedicels, leaves and sepals pubescent. Leaf-blades oval or ovate, crenate-serrate to dentate. Plants of dry soil.

Leaf-blades dentate, cordate or truncate at base.

Sepals 3.5-5 mm. long, linear-lanceolate, exceeding the capsule. Capsule with hairs not glandular nor dark-jointed. Plant ascending or erect.

Sepals unequal, the longest 4-5 mm. long. Capsule slightly notched. Style 4-5 mm. long, longer than the capsule. Leaf-blades sessile or nearly so. Racemes over 10-flowered, the pedicels more than 1 mm. long.

Corolla 7-8 mm. long, violet-blue, the largest lobes ovate. Anterior sepals much exceeding the posterior. Capsule longer than wide. Racemes 30-60-flowered, the pedicels scarcely exceeding their bracts. Leaf-blades coarsely dentate. Stem erect, 4-8 dm. tall.....18. *V. latifolia*.

Corolla 5-6 mm. long, paler violet-blue, the largest lobes nearly orbicular. Anterior sepals slightly exceeding the posterior. Capsule wider than long. Racemes 10-20-flowered, the pedicels much exceeding their bracts. Leaf-blades crenately dentate. Stem ascending, 1-3 dm. tall....19. *V. Chamaedrys*.

Sepals equal or nearly so, 3.5-4 mm. long. Capsule deeply notched, wider than long. Style

⁷ Selected, among the several species common to both Linné and Tournefort, which answer Linné's generic characterization in *Genera Plantarum*, ed. V. 10. 1754, and are native to Linné's country Sweden, because of its officinal nature. This species had a long historic right to the name "Veronica."

- .5 mm. long, much shorter than the capsule. Leaf-blades shortly petioled. Racemes 5-10-flowered, the pedicels less than 1 mm. long.....20. *V. javanica*.
- Leaf-blades oval, crenate-serrate, narrowed to a petiolar base. Sepals 2-3 mm. long, oblong-lanceolate, shorter than the capsule. Capsule as wide or wider than long, notched, with hairs dark-jointed and some of them glandular. Style 2.5-3.5 mm. long, shorter than the capsule. Plants repent, ascending at apex.
- Corolla 8-9 mm. long, violet-blue. Capsule 5 mm. long, as wide as long, its lobes rounded, the most distal point of each midway between the style and the lateral margin. Racemes 3-5-flowered, the pedicels longer than the capsule. Leaf-blades about 2 cm. long, crenate-serrate with very low teeth, hirsute above, glabrous beneath, conspicuously ciliate. Stem less than .5 dm. long.....21. *V. grandiflora*.
- Corolla 3-4 mm. long, pale-lavender, with lavender blue lines on the posterior side. Capsule 3-4 mm. long, wider than long, its lobes with the most distal point of each near the lateral margin. Racemes 20-30-flowered, the pedicels shorter than the sepals or capsules. Leaf-blades 2-5 cm. long, crenate-serrate with prominent teeth, pubescent on both surfaces but not obviously ciliate. Stem extensively repent, 2 dm. long or longer.....22. *V. officinalis*.
- A'. Capsule glabrous or with a few minute gland-tipped hairs. Stems, pedicels, leaves and sepals glabrous, or very rarely pubescent. Leaf-blades oblong-ovate to linear, finely serrate to entire. Aquatics.
- B. Capsule not conspicuously wider than long, and scarcely or not two-lobed. Sepals nearly or quite equaling the capsule, slightly unequal, the anterior longer. Leaf-blades oblong-ovate to lanceolate, obtuse to acuminate, serrate to crenate-serrate. Stem glabrous or pubescent with minute gland-tipped hairs. Racemes usually of more than 10 flowers, the relatively stout pedicels ascending-spreading.
- Leaf-blades all petioled, prevailingly ovate-oblong, acutish to obtuse. Racemes usually 10-25-flowered, the pedicels 5-13 mm. long. Plants mainly emersed, glabrous throughout. Capsule slightly wider than long, notched.
- Leaf-blades oblong-oval, widest at or above the middle, narrowed at base, mostly broadly rounded at apex. Style 1.5-2 mm. long, obviously shorter than the capsule. Plant extensively repent, ascending at apex....23. *V. Beccabunga*.
- Leaf-blades lanceolate to ovate, widest at or near the base, mostly acute or acutish at apex. Style 2-3 mm. long, scarcely shorter than the capsule. Plant repent only at base, soon ascending-erect.....24. *V. americana*.

Leaf-blades, at least the upper on the flowering-stems, sessile and clasping, obtuse to acuminate. Racemes 15–60-flowered, the pedicels 3–8 mm. long. Plants of deeper water, usually mostly submersed.

Capsule 2.5–4 mm. long. Style 1.3–2 mm. long.

Cauline leaf-blades acute to acuminate.

Sepals acute to acuminate. Capsule scarcely wider than long, not or slightly notched. Leaf-blades serrate with close teeth (four or more to 1 cm.). Racemes usually 30–60-flowered, with pedicels 4–8 mm. long.

Stem distally, rachis and pedicels glabrous.

Capsule globose-ovoid, acutish or rounded, not or scarcely emarginate. Style 1.5–2 mm. long. Leaf-blades oblong-ovate, mostly broadest about the middle, the lower usually obviously narrowed at base or petioled.

Sepals acuminate, 4–5 mm. long. Capsule 3–4 mm. long. Pedicels 5–8 mm. long.....25. *V. Anagallis-aquatica*.

Sepals acute, 2.5–4 mm. long. Capsule 2.5–3 mm. long. Pedicels 3–5 mm. long.....25a. *V. Anagallis-aquatica Brittonii*.

Stem distally, rachis and pedicels finely pubescent with minute gland-tipped hairs. Capsule nearly globose, slightly emarginate. Style 1.3–1.5 mm. long. Leaf-blades lanceolate, mostly broadest near the base, all obviously clasping.....26. *V. glandifera*.

Sepals obtuse to acutish. Capsule obviously wider than long, evidently notched. Leaf-blades crenate-serrate with remote teeth (two to three to 1 cm.), lanceolate, all clasping. Racemes usually 15–30-flowered, the pedicels 3–6 mm. long.

Stem distally, rachis and pedicels glabrous. Style 1.4–1.6 mm. long.....27. *V. catenata*.

Stem distally, rachis and pedicels finely pubescent with minute gland-tipped hairs. Style 1.5–1.8 mm. long
27a. *V. catenata glandulosa*.

Capsule 2 mm. long, globose, not or scarcely notched. Style .7–1 mm. long. Cauline leaf-blades oblong-lanceolate, obtuse or obtusish. Stem distally, rachis and pedicels usually pubescent with minute gland-tipped hairs.....28. *V. undulata*.

B'. Capsule much wider than long, strongly two-lobed. Sepals shorter than the capsule, equal. Leaf-blades linear or lanceolate, remotely setaceous-toothed or entire. Stem glabrous or pubescent with glandless hairs. Racemes 5–20-flowered, the filiform pedicels reflexing in fruit.....29. *V. scutellata*.

18. VERONICA LATIFOLIA L.

Veronica latifolia L., Sp. Pl. 13. 1753. "Habitat in Helvetia, Bithynia." The identity of this species has been much disputed, on one side being such statements as Bentham in DC., Prod. 10: 469. 1846, who considers it to be a broad-leaved form of *V. Teucrium* L., on the other Kerner in Oesterr. Bot. Zeitschr. 23: 367-369. 1875, who makes a strong plea for its identification as *V. urticaefolia* Jacq., Fl. Austr. 1: 37. pl. 59. 1773. Certainly some of the synonyms cited by Linné appear to be *V. urticaefolia*, a species very readily distinguished by its slender stem, thin smooth leaves which are sharply serrate and long-acuminate, and its shorter racemes, on the slender pedicels of which are borne the short sepals and small pinkish corollas. Linné's description, in the use of the words "foliis rugosis dentatis," certainly does not describe *urticaefolia*, and moreover one can scarcely believe that he would have omitted characterization of the leaf-acumination. Sir J. E. Smith, in Rees Cyclop. 37: Art. Veronica, no. 58, describes the Linnean specimen and emphatically asserts its kinship to *V. Teucrium* L., not to *urticaefolia* Jacq. In the absence of citation to other specimens studied by Linné, the specimen of the Linnean Herbarium should stand as type. Sir J. E. Smith carefully contrasts this with *V. Teucrium* L., but study of the varying leaf-form of the latter confirms Bentham's view as to their identity.

Veronica Teucrium L., Sp. Pl. ed. II. 16. 1762. "Habitat in Germania." Linné possessed no specimen of this in his herbarium, which readily explains his describing as new a narrower-leaved form of this species than his own *V. latifolia*. The specific name is derived from "Teucii IV tertia species Clus. hist. 1 p. 349." L'Ecluse, Rar. Pl. Hist. 349. 1601, figures and briefly describes a plant, which is an ovate-leaved form of the species, and says that it grows "in herbosis collium jugis [Pannoniae Austriae Moraviae & Bohemiae]." Linné's description of his plant as with leaves "ovatis rugosis dentatis" shows the similarity of this to his own *latifolia*.

Roadsides, pastures and waste land, New Hampshire to Ontario, New Jersey and Ohio; introduced from Europe.

19. VERONICA CHAMAEDRYIS L.

Veronica Chamaedrys L., Sp. Pl. 13. 1753. "Habitat in Europae pratis." The diagnosis is essentially taken from Linné, Fl. Suec. 5, no. 12. 1745, where the plant is stated to occur in Sweden "in pratis ubique." Evidently this is the species now considered. Several specimens from Sweden seen, one collected by Dr. W. A. Murrill at Upsala, July, 1902, being probably a topotype.

Roadsides and meadows, occasional from Prince Edward Island to Ontario, New Jersey and Ohio. Introduced from Europe.

20. *VERONICA JAVANICA* Blume.

Veronica javanica Blume, Bijdr. Fl. Nederl. Ind. 742. 1826. “Crescit in cacumine Sederato et ad cataractas fluvii Tjikundul montis Gede [Java].” The brief original description, especially in the phrase “spicis axillaribus,” would seem to denote the plant here considered. I have followed Sir J. D. Hooker, Fl. Brit. Ind. 4: 296. 1884, in adopting this name, as the only named specimen which I have for comparison, Griffith 3921 from East Himalaya distributed by Kew Gardens as “*Veronica Maddenii* Edg.,” is evidently this species. There is also a previously unnamed specimen, in Herb. New York Botanical Garden, from the Liu Kiu Islands.

Petropolis, Brazil, collected by J. Ball in 1882. Introduced from the Oriental Region.

21. *Veronica grandiflora* J. Gaertn.

Veronica grandiflora J. Gaertn. in Novi Comm. Acad. Petrop. 14: 531. pl. 18, f. 1. 1770. “Kamtschatkam pro patria sua in pratis alpinis, referente Stellero, copiose nascitur.” A full description, and a carefully drawn illustration, make the application of this name unmistakable, although the capsule is described as smooth (the word “laevis” however, not the word “glaber”). Apparently this was accidentally renamed by the younger Linné (Suppl. 83. 1781), who says of it: “*Veronica kamtschatica* Gaertner Act. petropol. Habitat in Kamtschatka.” Specimens, L. Stejneger 106, etc., seen from Bering Island, along the coast of Kamchatka.

Western Aleutian Islands (Kiska and Attu Islands). Also in Kamchatka.

Similar to, but much larger than, *Veronica aphylla* L., Sp. Pl. 11. 1753, of the Alps of Europe; differs by having its stems frequently 1 dm. long, its peduncles longer, its leaves 2.5–4 cm. long (not 1–2 cm. long), obovate and more acute, its corollas 8–9 mm. long (not 5 mm. long), and its style 8–9 mm. long, exerted, probably as long as the capsule (not 4 mm. long and only one-half to two-thirds length of capsule).

22. *VERONICA OFFICINALIS* L.

Veronica officinalis L., Sp. Pl. 11. 1753. “Habitat in Europae sylvestribus sterilibus.” Refers to Linné, Mat. Med. 4, no. 11. 1749; then to Linné, Fl. Suec. 4, no. 8. 1745, where the plant is said to occur in Sweden “frequens in sylvis praesertim exustis,” and its medical uses are mentioned. The Linnean specimens are more fully described by Sir J. E. Smith in Rees Cyclop. 37: Art. Veronica. no. 53. 1819. Specimen in Herb. New York Botanical Garden, collected at Upsala, Sweden, July, 1902, by Dr. W. A. Merrill, is probably a topotype.

Fields, barrens and open woods, mostly common; from Newfoundland and Michigan to North Carolina and Tennessee. Apparently introduced from Eurasia, although usually in seemingly native habitats.

23. *VERONICA BECCABUNGA* L.

Veronica Beccabunga L., Sp. Pl. 12. 1753. "Habitat in Europa ad rivulos." Diagnosis quoted from Linné, Fl. Suec. 5. no. 11. 1745, where it is stated that in Sweden the plant "habitat in fossis, rivulis, scaturiginibus passim," and that it is the "Beccabungae Herba Conserva, Aqua" of the Pharmacopoeas.

Running brooks, ditches and wet fields, well established in Quebec, also at Rochester, New York and Perth Amboy, New Jersey. Introduced from Eurasia, where this species is as wide-spread as on this continent is the following near relative.

24. *Veronica americana* Schwein.

Veronica Beccabunga americana Raf., Med. Fl. 2: 109. pl. 94. 1830. "Grows from Canada to Virginia and Kentucky, near waters, brooks, &c." Well described, and contrast given with *V. Beccabunga* as understood by Rafinesque. Apparently this plant was independently redescribed under this name by Torrey in Fl. New York 2: 41. 1843, whose type I have seen in Herb. Columbia University.

Veronica americana Schwein.; Benth. in DC. Prod. 10: 468. 1846. "*Veronica americana* (Schweinitz! mss.) In America boreali a Canada et Carolina usque ad flum. Oregon et in ins, Sitcha (v. s.)" Specimen seen in Herb. Academy of Natural Sciences of Philadelphia, labeled "Bethl." [= Bethlehem, Pennsylvania], collected by Schweinitz, may be an isotype. Well contrasted with *V. Beccabunga* L., instancing leaf-form and more erect habit.

Veronica americana hirsuta Coleman, Cat. Fl. Pl. S. Michigan 27, 1874. "Southern peninsula of Michigan." Described as "plant quite large, 24 to 30 inches high, very hirsute." I have never seen a pubescent form of this species, and Coleman's specimen, if extant, should be studied.

Veronica americana crassula Rydb. in Mem. New York Bot. Gard. 1: 353. 1900. "In bogs, at an altitude of 2000-2500 m. Montana: Little Belt Pass, 1896, Flodman, 778 (type)." Type seen in Herb. New York Botanical Garden. This represents the dwarfed alpine state of the species, which may better be considered a forma.

Veronica oxylobula Greene, Pittonia 5: 113. 1903. "Type specimens from Golden City, Colorado, collected by myself in 1871." Supposed to be distinguished by "its entire or subentire foliage and the longer and almost acute capsules," features of variability within this species.

Veronica crenatifolia Greene, l. c. 114. 1903. “The type . . . is Baker, Earle and Tracy’s n. 33, from along the Mancos River in southern Colorado, 22 June, 1898.” Isotypes seen in Herb. New York Botanical Garden and U. S. National Herbarium. Apparently supposed to be distinguished by its smaller size and crenate leaves, variations frequent in *V. americana*.

Swamps, springs and woodland rills, from Newfoundland, Ontario and Alaska, south, eastward to South Carolina and Tennessee, westward to Chihuahua, California, and the Valley of Mexico; also on the Commander Islands on the western side of Bering Sea. Generally common over this wide area.

Veronica americana appears to be only inconstantly distinguishable from *V. Beccabunga* by its leaf-form and more erect habit. The leaf is mostly narrower, widest near the truncately rounded or subcordate base, narrowing to the acute or obtuse apex, and borne on frequently shorter pedicels. The capsule-shape is the same, nearly globose, flattened and emarginate at apex, the corolla, sepals and pedicels are of about the same length as in that species, but the last are usually more slender. The styles are longer and usually more slender in *americana*. The leaves vary from serrate through crenate to nearly or quite entire.

25. *Veronica Anagallis-aquatica* L.

Veronica Anagallis-aquatica L., Sp. Pl. 12. 1753. “Habitat in Europa ad fossas.” Description quoted from Linné, Fl. Suec. 5, no. 10. 1745, where the plant is stated to occur in Sweden “in fossis ad vias & paludes Uplandiae, Scaniae &c.” Described with leaves serrate, and with citations to Tournefort and Bauhin who both term the leaves oblong. The Swedish plant is well described by Nyman, Utkast Sv. Vaxt. Naturh. Sver. Fanerog. 164. 1867, who tells us that its leaves are lanceolate or oval-lanceolate, pointed, and its capsules are rounded, very shallowly notched. All which indicates the present broad-leaved plant with scarcely or not notched capsules, not another plant of northwestern Europe which has elongate acuminate leaves, and capsules decidedly notched, as broad as or broader than long. Our plant has the lower leaves and those of autumnal shoots narrowed or petioled at the base, a condition mentioned in such exact descriptions as Hayek, Fl. Steiermark 2: 168. 1912; also the short round form of these autumnal leaves is mentioned in Villars, Hist. Pl. Dauphine 2: 14. 1787.

Veronica lepida Phil. in Anal. Univ. Chile 91: 110. 1895. “Habitat ad Vicum Cartajena (haud procul a Valparaiso [Chile]), Febrero, 1895 lecta.” Described because the petioled lower leaves were noticed.

Veronica micromera Wooton & Standley in Contrib. U. S. Nat. Herb. **16**: 174. 1913. "Type in the U. S. National Herbarium, no. 686250, collected along ditches about Shiprock, on the Navajo Reservation [New Mexico], July 25, 1911, by Paul C. Standley (no. 7283). Altitude 1,425 meters." Type seen in U. S. National Herbarium. A dwarf form, with small leaves which are more obviously narrowed at base.

Slow-flowing streams, wide-spread through North and South America; specimens seen from Michigan, Utah, New Mexico, Arizona, Argentina and Chile. Also of wide occurrence in Eurasia; specimens seen from Germany, Switzerland, Italy, Albania, Algeria and Syria. Of this critical species-group this is the most widely dispersed and probably the original element.

25a. **Veronica Anagallis-aquatica Brittonii** (Porter) Pennell, comb. nov.

Veronica Anagallis latifolia Britton in Bull. Torr. Bot. Club **12**: 49. 1885. "In the latter part of September, 1883, . . . near Mahwah, Bergen Co., New Jersey, I noticed [it] in a small stream . . ." Type seen in Herb. Columbia University. Not *V. Anagallis latifolia* Schultz, Prod. Fl. Stargard. Suppl. 3. 1819 (which is *V. Anagallis-aquatica* L.).

Veronica Brittonii Porter; Pennell in Torreyia **19**: 168. 1919. "Type, base of Marble Hill, above Phillipsburg, New Jersey, collected in flower and fruit June 24, 1892, T. C. Porter; in herbarium Columbia University at the New York Botanical Garden."

Slow-flowing streams, western Connecticut to northern Pennsylvania. For list of localities see Torroya **19**: 170. 1919.

Perhaps not worthy of even varietal distinction.

26. **Veronica glandifera** Pennell

Veronica perfoliata Raf., New Fl. Am. **4**: 37. 1838. "Florida." Description almost certainly of the plant now considered, which however is not authentically known from so far south. The clasping opposite leaves of *V. glandifera*, till closely seen, appear connate. Not *V. perfoliata* R. Br., 1810.

Veronica glandifera Pennell in Torreyia **19**: 170. 1919. "Type, vicinity of Suffolk, Nansemond County, Virginia, collected in flower and fruit, May 27, 1893, N. L. Britton and J. K. Small; in herbarium Columbia University at the New York Botanical Garden."

Slow-flowing streams, in limestone, Virginia and Ohio to North Carolina and Tennessee. Perhaps intergrades with *V. catenata glandulosa*.

The petioled leaves of late-summer shoots are well shown on specimens of Bruce Fink 262 from Oxford, Ohio, collected August 8, 1908.

While in pubescence this species parallels Palaeartic derivatives of *Veronica Anagallis-aquatica* L., I am unable to place our plant of eastern North America as of the same species as any of these. Such species are: *V. anagalloides* Guss., Pl. Rar. Sic. 5. pl. 3. 1829, which has a capsule decidedly longer than wide, and not or scarcely emarginate; *V. oxycarpa* Boiss., Diagn. I. 7: 44. 1846, with acute capsule and leaves narrowed at base; and *V. salina* Schur, Enum. Pl. Transsilv. 492. 1866, very similar to *V. anagalloides*.

27. ***Veronica catenata*** Pennell, sp. nov.

Flowering stem 1–3 dm. long, glabrous throughout. Leaves lanceolate, acute or acutish, crenate to nearly entire, 3–5 cm. long, 1 cm. wide, all clasping, when submersed elongating and reaching 12 cm. long and 2 cm. wide. Racemes axillary to the upper leaves, 6–12 cm. long, 15–25-flowered. Bracts narrowly lanceolate, 4–5 mm. long. Pedicels 3–5 mm. long, glabrous. Sepals 3–3.5 mm. long, lance-ovate, obtusish. Corolla-lobes pale-blue. Style 1.2–1.7 mm. long. Capsule 3 mm. long, 3.5 mm. wide, broad-globose, decidedly emarginate. Seeds 0.5 mm. long, yellow-brown.

Type, Hot Springs, South Dakota, collected in flower and fruit June 16, 1892, P. A. Rydberg 926, in Herb. New York Botanical Garden. Named from the chain-like aspect of the long racemes of short-pedicelled flowers.

Slow-flowing streams, plains, from North Dakota and Saskatchewan to Kansas and New Mexico, southward west to Nevada and southern California.

27a. ***Veronica catenata glandulosa*** (Farwell) Pennell, comb. nov.

Veronica Anagallis-aquatica glandulosa Farwell in Rep. Mich. Acad. Sci. 19: 249. 1917. “Zoo Park, near Royal Oak [Michigan], [Farwell] No. 4323, July 13, 1916.” Not *V. Anagallis-aquatica glandulosa* Schur, Enum. Pl. Transsilv. 492. 1866. Description inadequate, but apparently of the plant now considered. As this is a small plant and moreover is the only glandular-pubescent “*Anagallis-aquatica*” known from Michigan, I apply the name to this.

Slow-flowing streams, western New York to Minnesota, South Dakota, Kentucky and Oklahoma; also in western Massachusetts and in southeastern and southern Pennsylvania. Probably intergrades with *V. glandifera*, and for the latter, in *Torreyia* 19: 170, I have mistaken plants of our New York “Local Flora.”

28. **VERONICA UNDULATA** Wall.

Veronica undulata Wall.; Roxb., Fl. Ind. 1: 147. 1820. “Discovered in the Turraye [India] by Mr. W. Jack.” Specimen in Herb. Columbia University, labeled “Nepal Wallich,” may be an isotype.

Ballast, Portland, Oregon, and Mobile, Alabama. Introduced from southeastern Asia, where it occurs from northern India through southern China, and in Japan.

Occasionally nearly or quite glabrous, but then readily distinguished by the small size of the capsule and style.

29. **Veronica scutellata** L.

Veronica scutellata L., Sp. Pl. 12. 1753. "Habitat in Europae inundatis." Diagnosis quoted from Linné, Fl. Suec. 4. no. 9. 1745, where the plant is said to grow in Sweden "in locis per hyemem inundatis frequens." Evidently the plant now considered.

Veronica uliginosa Raf. in Am. Mo. Mag. 2: 175. 1818. "*Veronica scutellata* Pursh Fl. Am. Sept. 1: 11." In his Fl. Am. Sept. 11. 1814, Pursh states of "*Veronica scutellata*" that "the American plant has longer leaves than any of the European specimens I have seen," a condition not verified by the material at hand to-day though Pursh's statement evidently misled Rafinesque into assuming for it specific distinctness.

Veronica connata Raf., Med. Fl. 2: 110. 1830. "In west Kentucky." Very briefly characterized and leaves said to be "connate;" surely they were merely cordate-clasping and opposite.

Meadows and swales, Newfoundland and Yukon to Virginia, Indiana, Wyoming, and California.

Occasionally occurs in a form more or less pubescent throughout, forma **villosa** (Schumacher) Pennell [*Veronica scutellata villosa* Schumacher, Enum. Pl. Saell. 1: 7. 1801; also *V. scutellata pilosa* Vahl, Enum. Pl. 1: 70. 1805; *V. scutellata pubescens* Koch, Syn. Fl. Germ. et Helv. 524. 1837.]. This occurs sporadically occasional throughout the range of the species.

III. **HEBE** Commerson

Hebe Comerson; [Juss., Gen. Pl. 105. 1789, generic diagnosis only;] J. F. Gmelin, Syst. Nat. 2: 27. 1791. Type species, *Hebe magellanica* J. F. Gmel.

Leaves lanceolate, acuminate to a small blunt tip, entire, not revolute, 6-7 cm. long. Racemes 5-13 cm. long, many-flowered. Sepals acuminate, 2-3 mm. long. Corolla with the oblong lobes shorter than or but little longer than the narrow tube. Stamens and style longer than the corolla and conspicuously exerted, the latter slender, 5-6 mm. long. Capsule oval in outline, relatively thin-walled. Stem minutely pubescent when young, especially between and proximad to bases of leaves, becoming glabrate; bark slightly wrinkled in drying.

- Racemes 13 cm. long; rachis, pedicels and lanceolate sepals finely pubescent. Corolla 5 mm. long, its lobes slightly shorter than the tube. Leaves attenuate-acuminate. Internodes on flowering shoots about 3 cm. long..... 1. *H. salicifolia*
- Racemes 5–7 cm. long; rachis, pedicels and lance-ovate sepals puberulent. Corolla not seen. Leaves narrowing to a blunt tip. Internodes on flowering shoots less than 1 cm. long..... 2. *H. blanda*
- Leaves elliptic-oval, apiculate, the margin revolute, callose, and at times obscurely crenate, 2–3 cm. long. Racemes 2 cm. long, few-flowered. Sepals acute to obtuse, 4 mm. long. Corolla 8 mm. long, the broadly ovate lobes much longer than the broad tube. Stamens not longer than the corolla, the stout style 4 mm. long. Capsule elliptic-oval in outline, thick-walled. Stem densely and persistently pubescent with pale hairs on side between and proximad to bases of leaves, below leaf-bases reddish, glabrous and shining; bark much wrinkled in drying... 3. *H. elliptica*

1. **Hebe salicifolia** (Forst.) Pennell, comb. nov.

Veronica salicifolia Forst., Fl. Ins. Austr. Prod. 3. 1786. “[Noua Zeelandia, G. Forster].” Several specimens from New Zealand seen, and one collected by A. H. Cockayne 8041, and labeled “*Veronica salicifolia* Forst. Typical South Island form,” shows precisely the slender finely pubescent pedicels, small flowers, and acuminate, almost attenuate leaves of our plant. Type species of genus *Panoxis* Raf., Med. Fl. 2: 109. 1830.

Veronica Fonkii Phil. in Linnaea 29: 110. 1857–8. “En las playas y barrancas de Chonos, in litore et valleculis, legit . . . Dr. Fr. Fonk.” Specimen in Herb. Columbia University, labeled “*Veronica Fonki* Ph. Chonos, legit Philippi, com. am Treviranus 1864,” is doubtless an isotype. This seems to be the same as the plant of New Zealand.

Chonos, Chile. Also in South Island, New Zealand.

2. **Hebe blanda** (Cheesem.) Pennell, comb. nov.

Veronica amabilis blanda Cheesem., Man. New Zealand Fl. 506. 1906. “Port Chalmers [Otago, South Island, New Zealand] Petrie!” Specimen in Herb. New York Botanical Garden, collected at Anita Bay, Otago (where it forms “a considerable part of the ‘coastal Scrub’”) appears to be exactly our plant, and to agree with Cheeseman’s variety.

Southern Patagonia. Also in South Island, New Zealand.

3. **Hebe elliptica** (Forst.) Pennell, comb. nov.

Veronica elliptica Forst., Fl. Ins. Austr. Prod. 3. 1786. “[Noua Zeelandia, G. Forster],” Several specimens from New Zealand seen, two from Port Otway and Tuesday Bay respectively, agreeing exactly with our plant. Also a specimen from the Auckland Islands, Wilkes Expedition, is quite the same.

Veronica decussata [Soland. in] Ait., Hort. Kew. 1: 20, 1789. "Nat. of Falkland Islands. Introd. 1776, by John Fothergill." Described as with bracteoles on pedicels, an appearance probably caused by the terminal bractlets of the raceme appearing, while the bud of the rachis is suppressed.

Hebe magellanica J. F. Gmel., Syst. Nat. 2: 27. 1791. Based upon *Hebe* Juss., Gen. Pl. 105. 1789, where the name is attributed to Commerson and the plant said to be from Magellan. Evidently collected by Commerson at the Straits of Magellan in 1767-8.

Veronica Simpsonii Phil. in Anal. Univ. Chile 1873: 26. 1873. "Enrique Simpson trajo de las orillas del rio Aysen, en Patagonia." The careful description of the branch, leaves, fruiting inflorescence, capsules and seeds appears to denote the species now considered.

Southern Patagonia and Falkland Islands. Also in the Auckland Islands and South Island of New Zealand.

NOMINA EXCLUDENDA.

Veronica caroliniana Poir., Encyc. Meth., Bot. 8: 520. 1808. "Communiquée par M. Bosc, qui l'a recueillie dans la Caroline." This is *Cynoctonum Mitreola* (L.) Britton, of the Loganiaceae. Not *V. caroliniana* Walt., 1788.

Veronica cinerea Raf., New Fl. Am. 4: 39. 1838. "From Origen." Description of plant as "cinereous villose, leaves alternate . . . flowers spicate very dense sessile . . . stamens very long" appears to denote some species of *Synthyris*.

Veronica fluminensis Vell., Fl. Flum. 11. 1825; Icones 1: pl. 25. 1827. "Abunde provenit locis umbrosis ad vias maritimas Regii Praedii Sanctae Crucis [Brazil]." Description and illustration show a plant of the Acanthaceae.

Veronica litoralis Vell., Fl. Flum. 10. 1825; Icones 1: pl. 24. 1827. "Silvis maritimis Regii Praedii Sanctae Crucis [Brazil] prope litus, ad loca arenosa habitat." Description and illustration show a plant of the Acanthaceae.

Veronica marilandica L., Sp. Pl. 14. 1753. "Habitat in Virginia." According to B. D. Jackson (in Proc. Linn. Soc. 14. Suppl.: 150. 1912), Linné transferred his specimen bearing this name to *Polypremum procumbens* L. Both his description and that in Gronovius' Fl. Virg. 4. 1739, indicate this plant of the Loganiaceae. I cannot locate the reference which is erroneously cited as: "*Veronica marilandica* Murr. Comm. Gotting. 11: t. 3. 1782."

Veronica missurica Raf. in Am. Monthly Mag. 3: 175. 1818. New name for *Veronica reniformis* Pursh, which was a species of *Synthyris*. See below.

Veronica Purshii G. Don, Gen. Hist. Dichl. Pl. 4: 573. 1838. "Native on the banks of the Missouri. *V. reniformis* Pursh . . . , but not of Rafin." A species of *Synthyris*. See below.

Veronica reniformis Pursh, Fl. Am. Sept. 1: 10. 1814. "Collected by Messrs. Lewis and Clark in boggy soil, on the banks of the Missouri . . . v. s. in Herb. Lewis." Type was apparently a plant collected on Hungry Creek, in what is now Montana, June 26, 1806, and an isotype of this in the Herbarium of the Academy of Natural Sciences of Philadelphia was determined by Robinson and Greenman [in Proc. Acad. Nat. Sci. Phila. 1898: 39. 1898] as *Synthyris reniformis major* Hook. Pursh's description is inaccurate, but I think must certainly apply to this collection which is the species, *S. major* (Hook.) Heller.

Veronica rotundifolia Ruiz & Pavon, Fl. Peruv. et Chil. 1: 6. 1798. "Habitat copiose in Peruviae uliginosis ad Pillao vicum." This is a species of *Sibthorpia*.

Veronica sparsiflora Raf., Atl. Jour. 79. 1832. Described from a plant in the Bartram Botanical Garden, Philadelphia, Pa., which was said to have been "native of Arkansas or Texas, received from Prof. Nuttall." I know of no American species at all fitting this description: "stem erect, simple round solid, leaves opposite sessile cuneate oblong entire obtuse. Raceme terminal lax very long, flowers scattered, bracts linear oblong obtuse, pedicels filiform. Capsules bilobed subcompressed. Annual . . . Stem 1 or 2 feet high. Flowers vernal purpurescent handsome. Corolla rotate, segments of the calix unequal oblong, obtuse" Is it a foreign species, or not a *Veronica*?

NEW YORK BOTANICAL GARDEN.

AN ESTUARIAN VARIETY OF *SCIRPUS SMITHII*.

NORMAN C. FASSETT

WHILE examining material of *Scirpus Smithii* Gray, collected last August on the banks of the Cathance River at Bowdoinham, Maine, the writer found that all the individuals from that locality had achenes with a perianth of bristles which differed from those of var. *setosus* Fernald by their complete lack of barbs. Material from Back River Creek in Woolwich and from the Androscoggin River at Brunswick proved on examination to have similar smooth bristles about the achene. The length of the bristles, moreover, instead of being uniform and greater than that of the achenes, as in var. *setosus*, was variable even on the same achene, and while an occasional bristle exceeded it, this was not common, and there were no cases in which all the bristles exceeded the achene. The number of bristles was also